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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.       | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------------|------------------|
| 09/847,168   | 05/01/2001  | George Kechriotis    | 5181-77600                | 5654             |
| 7590   | 04/12/2004  |                      |                           |                  |
| Jeffrey C. Hood<br>Conley, Rose & Tayon, P.C.<br>P.O. Box 398<br>Austin, TX 78767-0398 |             |                      | EXAMINER<br>NGO, CHUONG D |                  |
|  |             |                      | ART UNIT<br>2124          | PAPER NUMBER     |
| DATE MAILED: 04/12/2004  |             |                      |                           |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                          |                         |  |
|------------------------------|--------------------------|-------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b>   | <b>Applicant(s)</b>     |  |
|                              | 09/847,168               | KECHRIOTIS, GEORGE      |  |
|                              | Examiner<br>Chuong D Ngo | <b>Art Unit</b><br>2124 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 15 April 2002.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-62 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-31,34,35,41-51,61 and 62 is/are rejected.  
 7) Claim(s) 32,33,36-40 and 52-60 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____ .                                  |

## DETAILED ACTION

1. Claims 1-21, 24-31, 34,35,44-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1, the recitation “a corresponding P memory medium”, line 3, is indefinite. Claims 61 and 62 also have the same problems.

As per claim 4, it is indefinite as to what “a first mirror processor”, line 4, and “a second mirror processor”, lines 5-6, are. Claims 11,24,31,44 and 51 also have the same problem.

As per claim 43, the recitation “the P memory mediums” line 5, lacks a proper antecedent basis.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-3, 21-23,41-43,61 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsutsui (5,349,549) in view of Ju et al. (6,304,887).

Tsutsui discloses in figure 2 a discrete transform of an input signal including preprocessing (S01-S03) on the input signal to produce a first intermediate vector y (Z01) executing a Fourier transform (S04) on vector y to produce a second intermediate vector a (Z02), and post processing (S5) on vector a to produce a result vector v (Y01) comprising the discrete transform of the input signal (see col. 16, line 58 through col. 17, line 17). It is noted that Tsutsui does not disclose the discrete transform being performed in parallel in a system comprising P interconnected processor and corresponding memory mediums. However, Ju et al discloses in figure 1 a parallel processing system including P interconnected processors and corresponding memory mediums for partitioning the input signal into P ordered local vectors and distributing the local vectors to the memory medium (see col. 6, lines 41-50), and performing a transform in parallel as claimed. It would have been obvious to a person of ordinary skill in the art to perform the discrete transform of Tsutsui in parallel using a plurality of interconnected processors and corresponding memory mediums as taught by Ju et al. in order to improve the latency and throughput of the transform circuit (see col. 2, lines 45-55).

4. Claims 32,33,36-40 and 52-60 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong D Ngo whose telephone number is (703) 305-9764. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703) 309-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Chuong D Ngo  
Primary Examiner  
Art Unit 2124

04-08-2004